CLAIMS

1. An apparatus for dividing a fluid flow from a fluid source, comprising:

a first fluid line connected to a fluid source;

a fluid flow meter positioned on the first fluid line to output a signal corresponding to a fluid flow rate through the first fluid line;

a second fluid line connected to the fluid source; and

a fluid flow controller positioned on the second fluid line and responsive to the signal from the fluid flow meter to divide the fluid flow from the fluid source.

2. The apparatus of claim 1, wherein the fluid flow controller comprises at least one flow control input responsive to the signal from the fluid flow meter.

3. The apparatus of claim 1, further comprising a tandem-processing chamber connected to the first fluid line and the second fluid line.

4. The apparatus of claim 1, wherein the fluid flow meter comprises a mass flow meter.

5. The apparatus of claim 1, wherein the fluid flow controller comprises a mass flow controller, a gate valve, a ball valve, a pneumatic valve, or combinations thereof.

6. The apparatus of claim 1, wherein the signal comprises a digital signal, an optical signal, a mechanical signal, an electrical signal, or combinations thereof.

7. The apparatus of claim 1, wherein the fluid flow controller equally divides the fluid flow between the first fluid line and the second fluid line.

8. The apparatus of claim 1, wherein the first fluid line, the second fluid line, and the flow control signal define a closed loop fluid control system responsive to the fluid flow rate through the first fluid line wherein a change in fluid flow from the fluid source results in a proportional change in the fluid flow rate through the first fluid line.

9. The apparatus of claim 1, wherein the fluid flow meter comprises a gas orifice

adapted to provide gas flow resistance.

10. An apparatus for dividing a gas flow from a gas source output into a tandem-processing chamber, comprising:

a first gas line connecting a gas source output to a first processing region of a tandem-processing chamber;

a gas flow meter positioned on the first gas line to output a signal corresponding to a first gas flow rate through the first gas line;

a second gas line connecting the gas source output to a second processing region of the tandem processing chamber; and

a gas flow controller positioned on the second gas line and responsive to the signal from the gas flow meter to divide the gas from the gas source output between the first gas flow rate through the first gas line to the first processing region and a second gas flow rate through the second gas line to the second processing region.

11. The apparatus of claim 10, wherein the first and second processing regions are connected by a common vacuum source.

12. The apparatus of claim 10, wherein the gas source output is controlled by a mass flow controller.

13. The apparatus of claim 10, wherein the gas flow controller comprises at least one flow control input responsive to the signal from the gas flow meter.

14. The apparatus of claim 10, wherein the gas flow meter comprises a mass flow meter.

15. The apparatus of claim 10, wherein the gas flow controller comprises a mass flow controller, a gate valve, a ball valve, a pneumatic valve, or combinations thereof.

16. The apparatus of claim 10, wherein the signal comprises a digital signal, an optical signal, a mechanical signal, an electrical signal, or combinations thereof.

17. The apparatus of claim 10, wherein the first gas line, the second gas line, and the flow control signal define a closed loop gas control system responsive to the gas flow rate through the first gas line wherein a change in gas flow from the gas flow output results in a proportional change in the gas flow rate through the first gas line.

18. A method of dividing a fluid flow from a fluid source, comprising:

measuring a first fluid flow rate through a first fluid line connected to the fluid source; and

controlling a second fluid flow rate through a second fluid line connected to the fluid source using the first fluid flow rate through the first fluid line.

19. The method of claim 18, wherein the fluid flow is equally divided between the first fluid line and the second fluid line.

20. The method of claim 18, wherein the first fluid line comprises a fluid flow measuring device that outputs a control signal, and the second fluid line comprises a fluid controller that receives the control signal.

21. The method of claim 20, wherein the fluid flow measuring device comprises a mass flow meter.

22. The method of claim 20, wherein the control signal comprises a digital signal, an optical signal, a mechanical signal, an electrical signal, or combinations thereof.

23. A method of dividing a gas flow in a tandem-processing chamber, comprising:

measuring a first gas flow rate from a gas source through a first gas line coupled to a first processing region of a tandem-processing chamber; and

using the first gas flow rate to control a second gas flow rate from the gas source through a second gas line coupled to a second processing region of the tandem-processing chamber.

24. The method of claim 23, wherein the gas flow is about equally divided between the first gas line and the second gas line.

25. The method of claim 23, wherein the first gas line comprises a gas flow measuring device that outputs a control signal, and the second gas line comprises a gas flow controller that receives the control signal.

26. The method of claim 23, wherein the gas flow measuring device comprises a mass flow meter.

27. The method of claim 23, wherein the gas flow controller comprises a mass flow controller, a gate valve, a ball valve, a pneumatic valve, or combinations thereof.

28. The method of claim 23, wherein the control signal comprises a digital signal, an optical signal, a mechanical signal, an electrical signal, or combinations thereof.

29. The method of claim 23, wherein the first gas line comprises a gas orifice adapted to provide gas flow resistance.